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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 10/717,345 | 11/19/2003 | Hideaki Nagakubo | 9281-4721 | 8686 |

7590

09/21/2005

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EXAMINER

SEMBER, THOMAS M

ART UNIT

PAPER NUMBER

2875

DATE MAILED: 09/21/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

AK

| | | | |
|------------------------------|------------------------|------------------------|--|
| Office Action Summary | Application No. | Applicant(s) | |
| | 10/717,345 | HIDEAKI NAGAKUBO ET AL | |
| | Examiner | Art Unit | |
| | Thomas M. Sember | 2875 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
 - If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
 - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
 - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 19 November 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-7 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-7 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>11/19/03</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-7 are rejected under 35 U.S.C. 102(e) as being anticipated by Jeon et al. Jeon et al discloses a light source 110; a light guide plate 140 for introducing light emitted from the light source 110 from an incidence surface provided on an end and emitting the light from a first surface; and a diffusive reflector 141 provided on a second surface of the light guide plate 140, wherein the diffusive reflector 141 is provided such that a minute concavo-convex portion having a light reflection property is formed on the surface of a base thereof and that the surface having the minute concavo-convex portion faces the second surface of the light guide plate. Regarding claim 2, a light directivity control sheet 170, in which a plurality of pyramid-shaped objects is formed on a base, is provided on the first surface of the light guide plate such that the apexes of the pyramid-shaped objects face an opposite side to the light guide plate, and wherein the light directivity control sheet controls the directivity of transmissive light components of at least two other directions of the light components that are emitted from the one

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surface of the light guide plate and pass through the light directivity control sheet.

Regarding claim 3, a light diffusive sheet 160 is provided on the surface of the light directivity control sheet where a plurality of pyramid-shaped objects is formed.

Regarding claim 4, a minute concavo-convex portion has a light diffusion property and is formed on a surface of the light directivity control sheet opposite to the light guide plate. Regarding claim 5, the thickness of a side far from the light source in the light guide plate is smaller than a thickness of the side close to the light source. Regarding claim 6, the light source comprises an intermediate light guide object 120 provided along the end of the light guide plate and a point light source 110 provided along the longitudinal end of the intermediate light guide object. Regarding claim 7, Jeon et al discloses a liquid crystal display unit illuminated by the backlight unit from the rear side.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-7 are rejected under 35 U.S.C. 102(e) as being anticipated by Hosseini et al (figure 8), Kuo or Matsumoto et al. Hosseini et al (figure 8), Kuo or Matsumoto et al discloses a light source; a light guide plate for introducing light emitted from the light source from an incidence surface provided on an end and emitting the light from a first

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surface; and a diffusive reflector provided on a second surface of the light guide plate, wherein the diffusive reflector is provided such that a minute concavo-convex portion having a light reflection property is formed on the surface of a base thereof and that the surface having the minute concavo-convex portion faces the second surface of the light guide plate. Regarding claim 2, a light directivity control sheet, in which a plurality of pyramid-shaped objects is formed on a base, is provided on the first surface of the light guide plate such that the apexes of the pyramid-shaped objects face an opposite side to the light guide plate, and wherein the light directivity control sheet controls the directivity of transmissive light components of at least two other directions of the light components that are emitted from the one surface of the light guide plate and pass through the light directivity control sheet. Regarding claim 3, a light diffusive sheet is provided on the surface of the light directivity control sheet where a plurality of pyramid-shaped objects is formed. Regarding claim 4, a minute concavo-convex portion has a light diffusion property and is formed on a surface of the light directivity control sheet opposite to the light guide plate. Regarding claim 5, the thickness of a side far from the light source in the light guide plate is smaller than a thickness of the side close to the light source. Regarding claim 6, the light source comprises an intermediate light guide object provided along the end of the light guide plate and a point light source provided along the longitudinal end of the intermediate light guide object. Regarding claim 7, a liquid crystal display unit is illuminated by the backlight unit from the rear side.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-4 and 6-7 are rejected under 35 U.S.C. 102(b) as being anticipated by Tai et al '601 or Tai et al '276 et al. Tai et al '601 or Tai et al '276 discloses a light source; a light guide plate for introducing light emitted from the light source from an incidence surface provided on an end and emitting the light from a first surface; and a diffusive reflector provided on a second surface of the light guide plate, wherein the diffusive reflector is provided such that a minute concavo-convex portion having a light reflection property is formed on the surface of a base thereof and that the surface having the minute concavo-convex portion faces the second surface of the light guide plate. Regarding claim 2, a light directivity control sheet, in which a plurality of pyramid-shaped objects is formed on a base, is provided on the first surface of the light guide plate such that the apexes of the pyramid-shaped objects face an opposite side to the light guide plate, and wherein the light directivity control sheet controls the directivity of transmissive light components of at least two other directions of the light components that are emitted from the one surface of the light guide plate and pass through the light directivity control sheet. Regarding claim 3, a light diffusive sheet is provided on the surface of the light directivity control sheet where a plurality of pyramid-shaped objects is formed. Regarding claim 4, a minute concavo-convex portion has a light diffusion property and is formed on a surface of the light directivity control sheet opposite to the

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light guide plate. Regarding claim 6, the light source comprises an intermediate light guide object provided along the end of the light guide plate and a point light source provided along the longitudinal end of the intermediate light guide object. Regarding claim 7, Ta liquid crystal display unit is illuminated by the backlight unit from a rear side.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thomas M. Sember whose telephone number is 571-272-2381. The examiner can normally be reached on M-F 8 A.M- 5.30 p.m. first Fridays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sandra O'Shea can be reached on 703-305-4939. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Thomas M Sember
Primary Examiner
Art Unit 2875
